

13. Congestive Fever. Syn. Pernicious fever. Typhus petechialis—Spotte fever. Cerebro-spinal meningitis—Brain fever. By T. H. SQUIRE, M. D. Communicated to the Society by the Secretary.

During the winter and spring of 1857, an epidemic, commonly called the spotted fever, prevailed in the villages of Elmira and Horseheads, and, to some extent, in other parts of Chemung county. The newness of the disease in this locality, and the fact that other portions of the State and country suffered more or less from its visitation during the same period, are a sufficient apology for the following list of cases and subsequent remarks:

*Case 1.* Lafayette Tillotson, a healthy boy, fourteen years of age, living on Lake street, Elmira, after retiring to bed on the 23d December, 1856, was seized with pain in his head and neck, with chills and vomiting. These symptoms continued through the night, and the next morning he had also severe pain in his arms and legs. At night he was delirious, and the power of speech was gone. He was not able to protrude his tongue, his jaw was set, and his face was dark red in color. He grew very restless; often tried to raise himself up in bed; tossed to and fro; struck with his arms, and kicked with his feet; groaned, but uttered nothing, save, now and then, "oh dear." At length, after violent jactitation and overwhelming distress, he sank into profound coma, and died 28th of December, after a sickness of only four days.

*Case 2.* On the 1st of January, 1857, a boy by the name of Walker, thirteen years of age, residing in the village of Elmira, was in the possession of perfect health; he spent most of the day (New Years) away from home; at night he returned to his father's house, and partook of a hearty supper. During the evening he was playful, and, at the usual hour, he went to bed.

In the middle of the night he was taken with sickness of the stomach, vomiting, severe head-ache, and soreness of the whole muscular system. Domestic treatment was relied upon till the evening of the second, when Dr. J. F. Hart was called in. At this time there was a feverish condition of the skin and pulse, a slightly furred tongue, congested and watery eyes, with increased sensibility to light, difficult articulation, complete derangement of mind, and great prostration of muscular power. A cathartic was administered which operated favorably. On the morning of the third, Dr. Hart observed "large circular stains, of a mulberry color, scattered here and there, at wide intervals, over the lower extremities; the skin was so morbidly sensitive to the touch, that even gentle sponging of the surface was disagreeable to the patient, and any attempt to move the body from one side of the bed to the other caused excruciating pain." Nearly the same symptoms continued till the morning of the 6th, when death closed the scene.

*Case 3.* Reported by Dr. Wey. On the 13th of February, at 10 o'clock, P. M., I was called to visit an infant, aged eight months, at the Seely creek railroad bridge, in the town of Southport, two miles from the village of Elmira. It was attacked suddenly, so the father informed me; and just before leaving the house, and not more than an hour or two from the commencement of the sickness of the stomach, he observed an eruption of cherry-colored spots on its face and neck, and immediately on observing this appearance, he started on a hand car for a physician. Forty-eight hours before, during the evening of the 11th of February, a sister of the infant, aged seven years, apparently in perfect health, was attacked in the same manner, and in a few hours, nearly its whole body, but more particularly its arms and legs, became covered with an eruption, or spotted discoloration, at first cherry-colored, but finally changing to a much darker color, and varying in size from the minutest speck, to the extent of a two-shilling piece, and even larger.

Dr. Jewell, of Wellsburgh, had seen and prescribed for this child several times, and at the time its father came for me, he stated that it could not possibly survive, and might die before



morning. His attention seemed to be continually occupied in concern for his infant son, whom he thought, by speedy attention, would be spared the probable fate of his daughter. On reaching the house, not more than an hour and a half from the time Mr. Parkinson started for me, we found that the infant had been dead an hour, and the other child was rapidly failing. The body of the younger one was yet quite warm and flexible, and was extensively covered with spots, not in the least elevated above the skin, varying in size from a pin's head to a six-pence, and very irregular in shape. They were of a light purple color, and were the largest and most distinct on the neck and chest. The statement of the child's mother, and of the other persons present, confirmed what Mr. Parkinson had mentioned respecting its seizure. In three hours from the time it first manifested symptoms of being ill, and while the attendants were engaged in watching the development and extension of the eruptions, it suddenly, to their great astonishment, died. There was nothing peculiar in the act of dying, more than that it ceased to breathe, when its mother, and others, least expected such an occurrence. Its body gave evidence, by inspection, that it had been a healthy child.

*Case 4.* The other child exhibited the following symptoms: the skin was neither hot nor cold, but under rather than above the natural heat; pulse feeble, small and frequent, the uneasy and disturbed state of the child preventing my counting them; she was wildly delirious, crying out that some one was hurting her, that she was drowning, and at times her language was incoherent; her complexion was of a dull, sodden, or bronzed hue; the nose pinched, cheeks collapsed, eyes sunken, pupils contracted, conjunctival membrane congested, and sight certainly lost, a bright light brought down suddenly before the eyes failing to make any impression. She was sensitive to a slight touch over the whole surface of the body, and especially was this sensitiveness remarked when any point of the eruption was even delicately impressed with the finger. Taking hold of the hand for the purpose of drawing the arm from under the bed clothes, to feel the pulse, produced a loud cry of pain, and the same

experiment was repeated with the same result, on attempting to separate the feet from each other. Pressure on the back, abdomen, or chest, gave the same evidence of distress. She moved her body constantly in bed, throwing her arms about in every direction, and made an unceasing effort to get up. She reached after imaginary objects in the air, and, when, for a moment, her arms were restrained by her side, decided subsultus of the tendons at the wrist was observed. The mouth was partly open when, for a moment, she appeared at rest, and offered the only opportunity to notice the tongue, which was dry, contracted, and covered with a dark fur; the teeth were covered with sordes, not as distinct as is sometimes observed in bilious fever, and the breath was peculiarly sickening and disagreeable. Her bowels had been freely moved by cathartics the day before, and the abdominal surface was rather concave than distended. Her arms, legs, and body were occupied by an eruption of spots, from the size of a cent downwards, irregular in shape, of a strikingly livid color, unaffected by pressure, a slight touch of the finger, as before mentioned, upon any of the spots, was immediately noticed by the patient. Five hours after I left the house, her delirium and restlessness having in the meantime become subdued, she died. Parkinson's family lived in a common board shanty, on the bank of Seely creek, and the appearance of the tenement indicated a very careless and untidy mode of housekeeping.

*Case 5.* A girl, five years old, daughter of Cornelius Powell, living on South Lake-st., Elmira, was taken suddenly ill, during the night of the 21st of February, and died seven hours afterwards, without being seen by a physician. In this case there were sickness at the stomach, vomiting, headache, great restlessness, convulsions, and other symptoms, which, together with their speedy termination in death, warrant the opinion that she died of the prevailing epidemic.

*Case 6.* Andrew Clark, a lad twelve years of age, residing on Carroll street, was well and attended Sabbath school on the 24th of February. At 11 o'clock P. M. he awoke from sleep with a heavy chill, severe pain in his head, back and limbs, and soon afterwards, sickness of the stomach and vomiting came on. Dr.



Gregg, being hastily summoned, was soon in attendance. He found the patient in great distress, with all the symptoms of collapse. This cold stage continued several hours, when violent reaction came on. It was evident that the boy was alarmingly sick. The pain in the head was intense, the joints were painful and tender, and the whole surface of the body was morbidly sensitive to the touch. The vomiting did not cease till the next day noon. About this time, twelve hours after the seizure, an eruption showed itself. In this case the spots were, many of them, as large as a dollar, of a dark livid color, and painful when pressed upon. They were the most conspicuous upon the trunk and thighs. The tongue was not materially altered in appearance, the pulse was characterized by feebleness and compressibility, the eyes were congested, and every symptom indicated a powerful impression upon the nervous centres. At seven o'clock Monday evening there was no pulse at the wrist, the patient was passing into a comatose state, and at two hours past midnight the heart ceased to beat. The eruption remained, and grew darker after death. This boy, previous to his sickness, had been subject to many of the hardships and privations of poverty. He was doubtless compelled to work beyond his strength. His food and clothing may have been unsuitable and insufficient; and his sleeping apartment certainly wanted proper ventilation.

*Case 7.* A child, son of Peter Bien, aged sixteen months, living in the eastern suburbs of the village of Elmira, died suddenly on the 4th of March, after an illness of only a few hours. It was not seen by a physician, but I have information which satisfies me that the case is properly enumerated in this report.

*Case 8.*—Reported by Dr. Tenney.—Child of John Curley, aged six years, living in the Third ward, Elmira. I was called at ten o'clock A. M., of the 7th of March, and found the boy with dilated pupils, sterterous breathing, and no pulse at the wrist. Death took place half an hour afterwards. The child went to bed as well as usual the night before; at ten o'clock in the evening it made complaint of pain in the legs and back; in the morning those complaints were renewed, and the child cried with violent headache; but the parents, Irish, suffered the

child's distress to pass unheeded till it was in a dying condition. There was no eruption on the skin.

*Case 9.* Reported by Dr J. F. Hart. Son of James Powell, aged ten years, living on Railroad street, Second ward, Elmira. This boy, having till then, enjoyed good health, was taken sick on the ninth of March. Quite late in the evening I was called to see him; found he had suffered a severe chill; his whole body was cold, and there was feeble pulse, with frequent vomiting and great prostration of the muscular system. By appropriate remedies, reaction was established; but, the disease continuing, the above symptoms were followed by delirium, convulsions and coma, and the patient died on the evening of the 12th March, sixty hours from the commencement of the disease. No eruption of the surface appeared.

*Case 10.* Reported by Dr. Tenney. A second child of John Curley, aged five years, was taken with pain in his limbs, at ten o'clock, P. M., tenth of March. Mustard applications were made to the feet, and the child was put to bed. It rested but poorly through the night, and in the morning it began to vomit and to complain of headache. I was called at nine o'clock, A. M. The child was then rational, but very much prostrated, having a small and feeble pulse. Energetic measures were resorted to to save the patient's life, but they were of no avail; death took place at five o'clock, P. M., eight hours from the time of my first visit. No eruption.

*Case 11.* Reported by Dr. Chubbuck. At eight o'clock Tuesday morning, March tenth, I was called to see James Dalley, an Irish laborer, thirty years of age, residing in the town of Southport, about one mile from my office. On my arrival, I found him in bed, complaining of some headache, the pain being most severe in the top of the head. His pulse was pretty full and strong, almost to a bleeding point; bowels were constipated, skin dry and hot, and the patient was inclined to be stupid. On inquiry, I learned that he had been dissipating to excess for two days and nights previously; had attended an Irish wake, where a child had died of the spotted fever; had drunk and danced



freely, and in this way was evidently much fatigued. His wife informed me that he had been in bed all day, and that she could not induce him to leave it. I gave him a cathartic dose of calomel, ordered sinapisms to the nape of the neck, and also to the feet, and directed the friends to let me know if he was not better in the morning. Wednesday morning, a little after daylight, a messenger came for me in great haste, saying that the patient was worse, and that Drs. Purdy and Flood had been requested to meet me at his bedside immediately. On reaching the house, I found Dr. Flood already in attendance, and Dr. Purdy arrived about the same time with myself. We found the man quite cold, especially the extremities; the breathing was labored, the pulse small and feeble; the pupils dilated, and the whole surface of the body covered with raisin-colored spots, varying from the size of a pin's head to that of a pea, or larger. We adopted a decidedly stimulating plan of treatment, visited him frequently, and did everything for him that could have been done, but his pulse continued to grow weaker and weaker, until all hope of recovery vanished. He died on Thursday evening, making a period of forty-eight hours from the time I first saw him. The spots continued distinct, and of a raisin-color, until he died.

Case 12. Reported by Dr. Tenny. C. W. Clark, aged forty-two years, living in the first ward, Elmira. I was called to see him at six o'clock P. M., March twelve, and found him laboring under a severe chill, and vomiting. His pulse was feeble and about one hundred per minute. He had been suffering from the chill for four hours when I saw him. I ascertained that, at seven o'clock in the morning, he had fallen through ice into the canal, getting himself very wet, and that he rode twelve miles afterwards, before changing clothes. I made use of hot applications externally, and other means calculated to restore the heat of the body. An hour and a half afterwards I called again, and found him no better; great thirst; throwing himself about the bed; vomiting; flashes of heat alternating with chills; pulse one hundred and thirty; soreness of the limbs, and pain in the hips and back; these were his chief symptoms. I stayed with him most of the night, giving brandy and laudanum, to quiet his extreme

restlessness, and induce reaction. At seven o'clock the next morning I observed spots on his hands, arms, and chest. He continued to fail rapidly, and died at eleven o'clock, being less than twenty-four hours from the time he was taken ill. At the time of his death, his skin was thoroughly covered with spots, like bruises, from the size of a three cent piece to that of half a dollar. His habits of life were bad; had been a hard drinker for several years.

*Case 13.* Child, four years old, son of Leonard Cherry, living on Clinton street. This was a fleshy, vigorous child, and apparently as well as usual on Saturday morning, fourteenth of March. At the breakfast table he ate rather less than usual, although this circumstance was not remarked by the parents, till after other symptoms began to create alarm in their minds. After breakfast he went with his sister into the yard to feed poultry. They remained out some little time, and the boy seemed lively and cheerful. But as they were returning to the house, only a trifling distance, he complained of being tired, and at the door step he sank down, and the girl carried him into the house. He played about the room, endeavoring to amuse himself, for a short space afterwards; but, at ten o'clock, he was observed close by the stove, and shaking with the cold; his countenance was blue, and his teeth chattered. He was taken up immediately, and prompt domestic treatment was resorted to. External warmth, and internal stimulants, soon brought on a partial reaction. I was sent for immediately, but being out of town, it was one o'clock before I saw the patient. He was then in bed, looking pale and languid, the surface of the body natural in temperature, the pupils somewhat dilated, the tongue moderately furred and moist, the pulse feeble and easily compressed. I did not think the child in a dangerous condition, but gave some tonic and alterative medicine, directed mustard to the feet and limbs, and took my departure, expecting to return at three o'clock, but business detained me till six o'clock in the evening. A great change had taken place. The child was very uneasy and restless in bed, in constant jactitation, rendering it difficult to keep the bed clothes over it; the expression of the countenance was wild and indicative of great



disturbance of the vital organs; the poor sufferer was actually struggling in the arms of death. The pupils were fully dilated; the pulse was scarcely perceptible; the breathing was stentorous; the extremities were cool, and a faint eruption existed on the body and legs. Notwithstanding the immediate and most active use of brandy, and other measures calculated to stimulate and sustain the vital powers, the case was every moment growing more and more hopeless, the disease seemed to mock every effort to check its fatal progress. While consciousness remained, the child, in its eagerness for relief, would snatch and swallow repeated doses of brandy, and whatever was offered to it, with the greatest avidity. But speedily consciousness was dethroned, and then all voluntary action was superseded by general subsultus tendenum. The left arm, especially, was, for an hour or more, kept almost constantly in motion of the most varied and eccentric character. Having now given up all hope of the child's recovery, I sat a long time and watched the strange and irregular movements of this extremity. The arm was elevated, depressed, abducted, adducted and circumductus; the forearm was flexed, extended, and rotated; the hand and digits were in constant motion, reminding me of the skilful movements of a mute conversing with his fingers; and all these movements, as far as possible, were going on at the same time. At length coma succeeded, and death took place at 12 o'clock, only fourteen hours from the time the child was first observed to be sick.

*Case 14.* Son of C. W Clark, aged seven years, was taken suddenly, on the 16th of March, and died three days afterwards. In this case a purpurul eruption was very distinct.

*Case 15.* Son of N. Mitchel, aged seven years, living on the river bank, in the First ward, was taken on the 20th of March. The day previous was cold, and in the afternoon the lad played along the bank of the river till he became quite chilly. He went to his mother with cries of being cold, and her sympathies being enlisted, he was made comfortable in bed. He slept till five o'clock in the morning, when he sent word to his father that his head ached and he was sick at his stomach. His father took him in his arms and conveyed him from the chamber where he slept to the kitchen below. Here he vomited and shook vio-

lently with the cold. Dr. Flood saw the boy at six o'clock, when his back, chest and extremities were covered with dark covered spots, almost black, varying in size from a pea to a quarter of a dollar. In the progress of this interesting case, among other symptoms, the head was retracted, delirium was present, the pupils were dilated, the eyesight was impaired or totally destroyed, the throat was sore, the deglutition was difficult, the knee joints were very painful, and during the latter stage there was extreme emaciation. After a lingering illness of seven weeks and four days, he died.

*Case 16.*—Reported by Dr. Flood.—Son of Patrick Boland, aged eight years, living in the Third ward, was taken March 21st with chills, headache and vomiting, and died in six hours, without treatment.

*Case 17.*—Reported by Dr. Flood.—Daughter of the same Patrick Boland, aged six years, was taken in the same manner, upon the same day, March 21st, and died in two hours, without treatment.

*Case 18.* Reported by Dr. Stanchfield. Baily Johnson, a house carpenter, aged twenty-five years, residing in the third ward, was taken ill on Saturday, the 21st March. On the morning of that day, he felt as well as usual; ate a hearty breakfast and went to his work, distant about half a mile. On his return to dinner, he complained of a slight disturbance of his head; it did not prevent him, however, from eating his meal and going to his work again; but the pain continuing rapidly to increase during the afternoon, he was obliged to desist from labor at four o'clock, and go home. I saw him an hour afterwards, when the headache was of an intense character, exceeding any thing which the patient had ever before endured; and he had previously suffered from the sick-headache, from bilious fever, and from the Panama fever. He passed a restless night. During the 22d, his bowels passed off twice, from physic, the discharges looking very natural, as to color and consistence; the tongue was moist and looked perfectly healthy. On the 23d, he became delirious; would throw his arms about, and catch hold of the dresses of those who stood by his bed-side, attempting to draw them to him; and a part of the time he



would lie in a stupor; and at other times he would appear to be at work; either planing boards, driving nails, or giving directions to his men. He complained of no pain in the back or bones, from the first; urine was of the natural color and quantity, no thirst; would never call for water nor drink it unless requested to do so. There seemed to be a total indifference to things around him; not a question asked from the beginning in regard to the nature of his disease, or its probable termination. 24th. No abatement of the symptoms, nor any perceivable alteration, with the exception of suffusion of the eyes, and an inability to control the lid of the left eye, which had fallen down over the globe, and he was unable to raise it. Pulse sixty-eight per minute, and in other particulars natural; the disease seemed to make no impression upon the circulation, unless it was to make it more torpid; the heart did not seem to beat with that degree of force and frequency as in health; and if you were to found your prognosis upon the circulation, the tongue, the secretions and excretions, you would be led astray, not anticipating a fatal termination so soon. 25th. His symptoms beginning to assume a more formidable aspect; the tongue slightly furred and dry in the middle; when asked to show his tongue, he fumbles it around his mouth, runs the end of it against the cheek, or up into the roof of his mouth, and takes a long time in getting it out of the mouth. 26th. His head now inclined to the right side and slightly drawn backwards; the conjunctiva considerably injected, and the pupil dilated; a greater degree of stupor, and an increased motion of the right arm; bowels move daily, aided by medicine, and the discharges healthy in color, consistence and smell; when aroused, complains of no pain, and becomes stupid again when left to himself. 27th. Much weaker; impossible to arouse him; his head turned still more to the right and drawn further backwards; the pulse beginning to flag, deglutition difficult; respiration natural till to-day; now more frequent. 28th. Two involuntary movements from the bowels; urine passed in the same way; eyes intensely injected, and matter floating about beneath the lids. An attempt was made to move him from his apparently uncomfortable position, by placing him upon his back, and a pillow under his head, but the

attempt was immediately abandoned, as it seemed to give him the utmost distress; in fact the head could not be bent forward, or the face turned into a line with the body; he seemed to suffer very much till he was put in his former position again. 29th. His head drawn back to an angle of forty-five degrees, and still more inclined to the right; breathing laborious and irregular; pulse feeble, but distinctly felt; extremities warm, and skin natural to the touch. He continued gradually to fail, and died at four o'clock, A. M. March 30th. No eruption or discoloration was seen upon him, until after his death, when, a few minutes afterwards, his body was found to be completely covered with slate colored spots, from the size of a pin's head to that of a shilling piece. The margin of these spots was regular, and they reminded me very much of blood blisters, although they were not elevated above the surface.

*Case 19.* Reported by Dr. Wey. Mr. Scudder, aged thirty-nine years, a healthy, temperate man, by trade a coppersmith, worked in the shop of Horton & Smith, Carroll street, and resided on South Lake street. On Monday, March 23, during a severe storm of snow and rain, in the morning while going to his work, he wet his feet, and remained till noon in wet stockings and boots. The following day his head, back and joints ached, and he was sick at the stomach, throwing up yellow matter closely resembling yolk of egg. He passed a restless night, during which the bowels moved twice, from mandrake root, which he was in the habit of taking as physic, and the pain in his head increased as morning approached. At seven o'clock, A. M., of Wednesday, March 25, a neighbor stepped in to see him, and after conversing with him a little while, was so much surprised at observing the change that had taken place in him since the previous evening, that he insisted on going for a physician, and the patient, yielding to his counsel, remarked, "Perhaps it will be as well to do so." The messenger ran over the bridge, and in ten minutes I reached the house. His skin was cool, hands and feet cold, pulse 80, weak and tremulous, respiration gasping, and very rapid. His eyes were closed, and he was already quite insensible. By calling his name in a loud voice, he would for a moment open his eyes, and relapse again into insensibility.



He could not speak, nor could the least impression be made upon his mind. His eyes were sunken, his features collapsed, and his complexion of a dull ashy color. It was impossible to observe the tongue, for he could not be made to respond to my request that he should put it out. He appeared like a dying man. Brandy and water put in his mouth he could not swallow, and we resorted to hot bricks, bottles of hot water, and friction applied to the whole surface of the body. In an hour, after faithfully continuing the heating measures, he was enabled to swallow, with evident difficulty, what was put in his mouth, yet he was as stupid as before. At night, on being asked in a loud voice if he had pain in his head, he opened his eyes and nodded his head, and once or twice, in moving from side to side, for he had become restless, he said "oh dear," but without betraying consciousness. On the 26th March he was yet unable to speak, and occasionally sank away as if about to die; stimulants were given and he revived. His eyes were congested, and he scowled continually. Alternating in this way between sinking and rising he lingered till ten o'clock Friday morning when he died, having never regained full, or even partial consciousness, since Wednesday morning at seven o'clock. The eruption first appeared on Wednesday soon after noon, when he began to perspire. It appeared on the neck, arms, forearms, thighs, legs, back and groins; was dark like the stains of raspberry juice, was irregular in shape, not elevated above the skin, not removed by pressure, and gradually grew darker as the case advanced. The spots were still darker after death.

*Case 20.* Reported by Dr. Wey. Mrs. John Mathews, aged twenty-three years, was confined on the 21st February. Her recovery was speedy. On the night of the 23d March, she retired to bed as well as usual; at midnight a chill seized her, and at three o'clock on Tuesday morning, March 24th, I was called to see her. She was yet cold and complaining of excruciating pain in the head over the eyes, and pain in the back and joints; face red; eyes congested as in measles; tongue pasty and covered with a grayish white fur; stomach quiet; abdominal surface natural; urine scanty. In the middle of the afternoon an erup-

tion appeared, first on the face, and rapidly spread over the neck, arms and legs; and with its appearance she begun rapidly to sink. The spots were livid in color, more like a blood blister than any I had seen, not raised, irregular in outline, and in size from a three cent piece downwards. She was inclined to insensibility, rendered incoherent replies to questions, and breathed heavily and laboriously. Stimulants were used unsparingly, both externally and internally, but without success. The pulse constantly flagged, and after throwing the body violently about for an hour, and at times screaming loudly as if in pain, she died at eight o'clock in the evening. She lived on Dewitt street, and her husband was employed in the same shop with Mr. Seudder, whose case is given above.

*Case 21.* Reported by Dr. Flood. Boy five years old, son of Joseph Allen, residing on Hudson street, in the Third ward, was suddenly attacked on the 25th of March, and died the next day.

*Case 22.* Reported by Dr. Flood. McNerny left his residence in the Third ward, and moved to the upper end of High street, on the 24th of March. On the 25th, a son, two years of age, was taken sick, and survived only two days.

*Case 23.* Reported by Dr. Wey. Daniel Hawkins, aged thirty-six years, a healthy man, has worked for ten years in the woolen factory. At noon of Thursday, March 26, while at work he experienced a severe pain in the head, over the right eye, but continued to labor during the balance of the day. His back was sore, and he felt that he had taken cold. I saw him Friday afternoon, March 27, at four o'clock. His skin was decidedly cool to the touch, pulse not above eighty, soft and yielding, breathing unembarrassed; pain in the head so severe that he could not lie still, but threw himself about the bed; pain in the back and limbs; mind clear, countenance pale as if he was faint; eyes brilliant and watery, tongue not dry but thickly covered with a white coat; appetite wholly gone, stomach quiet, bowels natural, urine scanty. Hot drinks were given, hot applications made to the surface, and in two hours perspiration was established. The pulse remaining feeble stimulants were used. The pain in the head constantly increased, and at three o'clock A. M., March



29th, it was so intense, though the pulse did not warrant it, that I ventured to take from a vein half a pint of blood. After the bleeding, so exceedingly full and irregular appeared to be the action of the heart, I was obliged to resort to cordials to sustain him. The pain in the head diminished from the time he was bled, and he ascribes his relief entirely to the venesection. At the time blood was drawn, his pulse ranged at seventy; after the bleeding it fell to sixty, and for two days did not advance beyond that point, and beat in the following manner: taking its pulsations for a minute, while the second hand of the watch was traversing the dial, the first quarter counted twelve, the second eighteen, the third ten, the fourth twenty. Shortly after, to show its irregularity, the first quarter gave fifteen, the second twenty, the third twelve, the fourth thirteen. During convalescence Hawkins has been very much troubled with rheumatism, with which for years he has been for intervals afflicted.\*

In relation to the case of Daniel Hawkins, I wish to add some particulars. I visited him daily for twelve weeks. The least appearance of improvement was not manifested before the ninth week. For about six weeks the symptoms were from day to day nearly the same. He lay upon his back, with his limbs fully extended, denoting great prostration. His tongue was never dry, and much of the time was not even pasty; he required but little drink. Delirium of a harmless, busy kind, indicated by imaginary conversations, by being engaged in labor, by disputations and discussions, persisted in until after he was able to leave his bed, and sit up every day. He partook of food in quantities greater than seemed good for him, through the whole of his sickness, and after the third week, and until nearly the time of resuming work in the factory, his movements from the bowels, as well as the urinary discharge, took place involuntarily. But once during the twelve weeks, and then only for two days, did the fecal discharges differ in consistence, color and smell from natural and healthy evacuations. On that occasion they were loosened by partaking of corn meal porridge. His strength wasted with the visible waste of his physical system, and at the

\* Here an interval of time takes place from April 6th to January 21st.—T. H. S.

end of the second month, his wife lifted him, without apparent difficulty, from one bed to another. The abdominal surface was always strikingly concave, and was never, at any time, in the least degree tender upon pressure. There was never any embarrassment of the respiratory functions, and from the beginning to the end of his sickness never rose above sixty in the minute, and was soft and regular. In consequence of the involuntary discharges of urine, which rendered it almost impossible to keep the bedding dry, and from the wasting of his body, pressing upon the sacrum and bones of the pelvis, troublesome bed sores were formed, which, as might have been expected, were slow in healing. For nearly three weeks, between the fifth and eighth weeks, his hands were in almost constant motion, reaching after objects in the air, and picking the bed clothes. To such an extent was this habit persevered in, that every sheet, pillow-case, bolster, blanket, quilt, and other articles of bedding, were sadly injured, and, in many instances, wholly destroyed.

It would be tedious to speak of the treatment followed in this case. It was, after the relapse, supporting throughout. He took liberally of wine, ale, quinine, and animal broths.

It was nearly five months, from the time of the commencement of his sickness, before he began to work again, and without losing a day from illness, he labored until Christmas, when the factory was stopped for repairs. His memory was very much impaired after the fever, and all his mental faculties had suffered a change. He was more irritable and hasty, desponding, intolerant of control or correction, and could never be made to comprehend that his sickness embraced a period extending from the intensely cold March day on which he last labored, to the pleasant sky and fields of June, on which he opened his mental eye, after nearly three months of darkness. After the eighth week, and when he appeared to be very slowly improving, his children were attacked with scarlet fever, and one, a girl, aged four or five years, died; and this afflictive event, which of all others should have left an impression on his mind, he never could realize.



On Christmas day he partook of a very hearty dinner, eating, both in quantity and quality, more than he had done since his recovery. During the night he vomited several times, chiefly what he had eaten, tinged with, and tasting of bile. For a week his stomach continued irritable, but he did not think it of sufficient importance to require medical aid until Sunday, December 30th, when I first saw him. His only trouble, as he expressed it, arose from his head and stomach, and he believed the pain in the former was alone kept up by the unsettled state of the latter. His countenance did not betray sickness; his eye was bright and natural, and from first to last, did not present anything unusual in its expression and change. His tongue was white and pasty, and his breath disagreeable. The least of food or drink taken on the stomach immediately excited nausea and vomiting. His bowels had not moved for two days. He suffered all the time from pain in the head, but during the paroxysm of vomiting, pressed his hands against his forehead, and cried out, evidently in a state of extreme distress. He felt easier when lying down, but was not confined, by necessity, to that position. His pulse was sixty per minute, soft and regular. Small doses of calomel and opium, with a solution of soda, quieted his vomiting in the course of twenty-four hours, when a cathartic was given, and a free movement was had from the bowels. A blister was put on the forehead, a second on the nape of the neck, and a third on the top of the head, which was bald. They appeared scarcely to mitigate the severity of the pain. He slept several hours Sunday night, and on Monday appeared more tranquil, and complained but little of his head until towards the middle of the afternoon, when, accompanied with slight fever, the pain became aggravated, and continued severe three or four hours. On the 5th, 6th, 7th, 8th and 9th January, every afternoon, sometimes earlier, but oftener later, his cheeks became slightly flushed, and the pain in the head increased. These exacerbations lasted from four to six hours, and were generally followed by a comparatively comfortable night. From the employment of calomel and opium on the 30th December, his gums had been made slightly sore. His pulse, uniformly in the afternoon, as well as in the morning, was sixty. On Saturday, January 9th, he was evidently

improving; in the afternoon the fever was less than on the preceding day, and late in the evening, his bowels not having moved for nearly forty-eight hours, castor oil was given. He slept quite well till four o'clock in the morning, January 10th, when he stepped out of bed to use the stool; as soon as his bowels moved he fainted away, and it was sometime before he returned to consciousness. He was very much prostrated by this sudden attack, but at nine o'clock, when I saw him, had revived, and expressed himself in more distress than before the operation from the bowels, but otherwise all his symptoms appeared much the same, and quite as favorable as at any time during the week. In the forenoon he conversed with several persons, and at noon, suddenly, without exhibiting any change, called his wife to him, and informed her that he was dying; and in twenty minutes he had ceased to breathe. I was not able to obtain permission to make a post mortem examination.

*Case 21.* Son of Francis Labusky, aged sixteen years, living on Perry street. At different times during the last four years, this boy had expelled portions of tape-worm. On the twenty-sixth of March he was living, temporarily, on Baldwin street. That evening he did not feel quite as well as usual, and only took a cup of tea and small piece of bread and butter for his supper. In the night he was taken with sickness and vomiting. At four o'clock in the morning, twenty-seventh March, he got up and went home to his father's; he entered the house, took a drink of water, and went up stairs to bed; he continued vomiting there; his mother got up, went to him there, and asked what the matter was; he replied, "Oh, mother, my head aches, and I am cold." She piled more bed clothes on him, and went below to make a fire and prepare him some warm tea; a few moments after the boy came down also, saying that his legs pained him so that he could not lie in bed. His mother observed that he looked strange and wild out of his eyes, his skin was blue, and he was shaking like one in an ague fit; in a few moments he went to bed again, but soon got up a second time, and sat in a chair; he could not be still a moment; he drank often; a doctor came and left him medicine to be taken every two hours; his

bowels were moved. On the morning of the twenty-eighth, he was out of his head, talked wildly, could not hear; when spoken to in a very loud voice, he would say, "Why don't you speak so I can hear you." The next morning he did not say much, nearly still. It hurt him to move his neck; he died at two o'clock, A. M. thirtieth March.

*Case 25.* The following imperfect history of this protracted case was obtained from the child's parents. Eliza Fairman, aged eleven years, living in the third ward; on the 27th of March, the day before her seizure, was unusually playful, singing and dancing with her school mates in a very lively and happy mood. Before going to bed that evening she remarked that her throat was sore. A younger sister slept with her, who, when she came down stairs in the morning, March 28th, said to her mother, "Eliza is sick; she has been vomiting on the carpet." The mother went up and seeing that she was very pale, and that she had vomited several times, raised her up in bed, but the child was unable to support herself. The father then took her in his arms and carried her down stairs, and placed her in an easy chair; she appeared drowsy and stupid all day; said her head ached, her faced ached and her neck ached. Towards evening she grew feverish, and was delirious all night. The next forenoon she seemed a little better, but as night came on she became very restless and suffered severe pain. Being asked where she felt pain, she replied, "my head aches, my back aches, my legs ache and one arm aches." Afterwards she had extreme pain in her limbs, sometimes one limb and sometimes another, like inflammatory rheumatism, could not bear to be touched; could not be moved without screaming. For the last two months of her sickness she was helpless, lying just as she was placed in bed, with no movement, from morning till night. The intellectual powers were also prostrated. She became very much emaciated, although for a few weeks before she died she took considerable food. Her feet bloated some before the close. Her pupils were, much of the time, widely dilated. She died on the 31st of July, having lingered and suffered through four months.



*Case 26.* Reported by Dr. Wey. On Monday, March 30th, I first saw an infant son, aged eight months, of Thomas Mack, living on Fox street. Early in the morning, suddenly, while being nursed by its mother, it was observed to wilt down, as if it had lost its muscular strength. It becoming pale and sick at the stomach, she concluded at once, that it was attacked with the fever, of which she had heard so much, and she made use of proper measures to induce perspiration. It was generally moist when I saw it, pulse small and exceedingly weak, respiration gasping, crying out violently, at short intervals, and relapsing into a partially stupid state; complexion very pale; lips without color; tongue covered with white fur; stomach occasionally turning; bowels had moved in the morning. Stimulants were given freely; mustard was applied to the feet, ankles, legs and bowels, and the arms were thoroughly rubbed. At dark the eruption showed itself on the neck, chest and legs; at ten o'clock in the evening, the spots were larger and extended more thickly on the surface, and at 12 o'clock the child died in a semi-comatose state.

*Case 27.* Son of James O'Brian, aged four years, living on Water street, was taken April 2d, with vomiting and head ache, and died in three days.

*Case 28.* Miss Sally Hovencamp, aged seventeen years, having no settled habitation, was taken on the 5th of April, at the house of Ira Clark, Carroll street, with chills, headache, pain in the limbs, and vomiting. She was conveyed, through rain and snow, at ten o'clock, of the sixth, to the miserable hovel of her brother-in-law, in the second ward, where with little or no attention, she continued vomiting, and tossing to and fro, in violent pain of the head and extremities, till the energies of her system were exhausted. Her head was rigidly drawn backwards; she had a cutaneous eruption, distinct and characteristic; she had no congestion of the eyes; she died, neglected of every one save her medical attendant, at four o'clock, P. M., 11th of April.

*Case 29.* Reported by Dr. Chubbuck. Monday, April 6th, at nine o'clock in the morning, I was called to visit Mrs. Sweet,

aged forty-one years, living on William street. I found her in a very hard chill, which lasted two hours; severe pain in the forehead, in the top of the head, the back, legs and arms; the flesh exceedingly tender to the touch, especially about the joints, and one of the fingers of the left hand particularly so. During the night she had not rested very well, but in the morning she arose, as usual, and prepared breakfast for the family, but ate nothing herself; and soon after breakfast, she was attacked with the chill, as above stated. I gave a large dose of quinine and morphine, in hot brandy sling; got her in bed and placed hot bricks saturated in warm water, about her, and she was soon in a profuse perspiration. Her pains continued through the day; pulse small, soft and slow; tongue not much coated; at ten o'clock at night, the stomach was so unsettled, that medicine could not be given. At six o'clock, next morning, I was called in haste to see her; found the circulation almost gone at the wrist; countenance haggard; extremities cold; inciting to be comatose; little pain in the head; made free use of stimulants and outward warmth. At nine o'clock, A. M., at my request, Dr. E. L. Hunt was called in. At this time the surface was covered with spots, or petetia, from the size of a pin's head, to that of a three cent piece. Dr. Hunt and myself staid with her most of the day, and we did every thing in our power to sustain the powers of life; but the pulse did not come up at all; she became fully comatose, and at ten minutes before nine o'clock, P. M., she expired, thirty-eight hours from the commencement of the attack.

*Case 30.* This very interesting case was under the care of Dr. E. L. Hart, whose skill and unremitting attention to the patient, through his long illness, are worthy of great commendation. The following imperfect history of the case, however, was obtained in part from the friends of the patient, and in part from my own observation, as I was kindly permitted to see the young man, on two occasions, during his sickness.

David Wilmot Vander Cook, aged seventeen years, residing on Clinton street, was in the enjoyment of perfect health at noon of April 7th. At three o'clock P. M. of that day, being in school,

he was seized with a chill; he looked blue, and, to use his own expression, he was "almost frozen." He went home, and sat by the warm stove till he became quite warm. He slept very well through the night. In the morning he got up and dressed himself, but appeared stiff, awkward, unable to bend; his face looked red, his head and back pained him severely, and before noon spots came out on his skin. By nine o'clock at night he was delirious, and the next morning he had a spell of vomiting. As days passed on, hopes began to be entertained of his recovery; but at the end of two weeks, other signs of cerebral oppression showed themselves. Before this, the pupils had been dilated, and now he became partially deaf, and completely lost the use of one arm; at this time also a scowl was frequently seen upon his brow. Without attempting to follow the case from day to day, we will now pass on to the 30th of May, when I dropped in to see him. He was lying upon his back, inclining to the right side, with two pillows under his head and shoulders. He was greatly emaciated, his soft white hands delicate and motionless; his eyes open and fixed steadily in one direction; his pupils dilated; his mouth drawn a little to the right side; his hearing, speech, and deglutition greatly impaired; his mental faculties gone, or extremely child-like; his left arm and leg entirely useless; his pulse 100, regular, small and rather tense; his bowels and bladder emptying themselves in bed. I staid in the room about twenty minutes, and as I was about to leave, I observed that the patient had closed his eyes, apparently in sleep. He died the 10th of June.

*Case 31.* Saturday, April 11th, daughter of John McGill, (colored,) four years old, living on Dickinson st., healthy till Wednesday night, April 8th. After going to bed, begun to cry; complained of pain in the head and legs, and wanted to drink; said she could not get up; was restless and thirsty all night; Thursday morning she vomited, and Dr. Tenny was called in; head has been painful ever since; legs and whole surface tender. Yesterday they gave her vermifuge, and five worms were expelled, one by the mouth. I have just seen the child with Dr. Tenny; lies on the right side, with the whole spine, and especially the head, firmly curved backwards; any effort to bring the head



forwards is forcibly resisted, and pain is produced; she cannot be placed in any other position; is restless, and moves the arms and legs more or less, and sometimes throws the head still further backwards; the breathing is now, and has been, embarrassed and irregular—a few inspirations too frequent, then as many either natural or too slow; tongue inclined to be dry, and furred in the middle; pulse 110, and otherwise not remarkable; no vomiting at present; eyes not congested; pupils natural; slight dulness of the eyes; semi-comatose; no appetite; no thirst; had some chills yesterday; starts, as usual, with worms; skin natural and dry; child cries as if in fear, especially when twitched, or moved in any direction. Put the child in a warm bath, wrapped it in flannel and put a blister along the spine. Six o'clock P. M., child lying on settee by the wall; wrapped in flannel and blankets; lies all the time on the right side; head thrown far backwards, and spine much curved; utters a cry of distress every few moments, and at the same time tries to throw the hips still further backwards towards the head; with each cry, also, the left arm is elevated and thrown backwards; skin quite hot and dry; tongue nearly clean and slightly dry; eyes not congested—pupils natural; pulse frequent—arm not still quite long enough to count them—say 140; no spots; surface sensitive; turned the child upon the left side; cried much, and soon got back into the old position; respiration becoming a little hoarse; does not talk; cannot swallow; the child must die soon. Sunday, six o'clock P. M.—The child maintained the same symptoms all night, and died this morning at seven o'clock; body warm at death.

*Section Cadaveris.*—The neck, which was so rigid yesterday, now perfectly flaccid, and the rigor mortis very slight in every other part of the body. Placed the body on the table; made an incision from ear to ear; turned back the scalp; sawed through the skull and removed the cap very carefully; nothing remarkable in the external appearance of the dura-mater; took the scissors and divided this membrane parallel with the course of the saw; with the forcep raised this membrane so as to expose the left hemisphere of the brain; this revealed a striking patho-

logical appearance; beneath the arachnoid membrane was a plentiful effusion of yellowish white lymph, filling up the interstices of the convolutions; this appearance we marked well; then in a similar manner the right hemisphere was uncovered, and a similar view was there exposed; next we divided the falx at its anterior extremity, and carefully removed the dura-mater; to effect this a little dissection was necessary, just at the summit, where the membrane was slightly attached to either hemisphere; this being done, we noticed that the effusion was most abundant over the anterior lobe of either hemisphere, and about the summit of the right. Next, with the scissors, we divided the first and second nerves, when the brain tipped back far enough to reveal much of the same fluid at the base of the brain; a perfect pool of sero-purulent fluid filled the foramen magnum; the fluid in the sub-arachnoidean spaces was abundant, and instead of being limpid, as in the healthy state, was thick and sero-purulent in character. The substance of the brain was injected with red blood, which exuded freely from the cut surface. The left cavities of the heart were empty; the right auricle was dilated by a large yellow coagula. The stomach was much softened at its greater cul-de-sac, so much so that it gave way on being elevated with the fingers, allowing its contents to escape into the abdominal cavity. Nothing else worthy of note.

*Case 32.* Elijah Van Sickles, aged nineteen years, a common laborer, living two miles north of Elmira, was taken on the 13th of April with headache, backache and chills. For three days he was in the hands of a mountebank. On the 16th he was taken in charge by Drs. E. L. Hart and Chubbuck, at which time his symptoms were of the most threatening and violent character. The muscles of the neck and back were rigidly contracted, causing opisthotonos, which kept the patient continually in the prone position. In this unnatural decumbency, lying upon the stomach, with the head rising above the pillow, he remained for the last two days of his life, dying in this condition. The pupils were dilated, and an eruption existed, similar to that of many other like cases. He died on the morning of the 18th, after a sickness of five days.

*Case 33.* Reported by Dr. Stanchfield. Julia Whiting, aged eleven years, of good constitution, living on Cross street, was attacked on the evening of the 28th of April. She had invited a few of her schoolmates into the house to spend the evening, and, at nine o'clock, while they were dancing, she suddenly became dizzy and dropped upon the lounge, saying to her mother that there was a strange feeling in her head. She slept well till the latter part of the night, when she awoke with a severe pain in her head. At four o'clock A. M., April 29, she had a hard chill, and vomited three or four times, after which she sank into "a sweet sleep," as her mother described it. At eight o'clock she was moved from the bed to the lounge. In putting on her clothes they discovered an eruption upon her back, and her mother remarked that she had been exposed to the measles, and that they were coming out beautifully. She remained in this comatose condition—"sweet sleep"—until three o'clock P. M., when they thought, from her peculiar breathing, advisable to call in a physician; remarking at the same time that they could not make her know them. I arrived at the house at half-past three o'clock, and found her nearly pulseless, breathing heavily, extremities cold, pupils dilated, and the eyes of a glassy appearance; drawing back of the head, and constant sighing; would scream out when touched, or when an attempt was made to move her; she could not bear to have a finger moved. I examined the eruption upon the back; it consisted of small spots, upon each side of the spine, from the upper part of the neck to the sacrum; they were very uniform and of the size of a pin's head; the skin was completely covered with them; there were none upon the extremities or other parts of the body; they were of a raisin color. She was immediately put upon the free use of stimulants, placed in bed, and hot applications applied to her till profuse perspiration was obtained. The head continued to fall backwards and to incline to the left side, as in the case already described, (18) and notwithstanding the most energetic measures, she continued rapidly to sink; the sighing became more distressing, and led me to think the influence of the respiratory nerves was partially suspended. She laid perfectly quiet during the night, and died on the morning of the 30th, at five o'clock.



*Post Mortem.*—A post mortem examination was made nine hours after death. On removing the clothes from the body, it was found to be covered with purple spots, as before described. The skull cap was removed in the usual manner, and on separating the dura-mater from the membranes beneath, there were slight adhesions near the longitudinal fissures, and upon the anterior portion of the cerebrum; there was no unnatural appearance of this membrane. The pia-mater covering the hemispheres of the brain, was congested, and the large veins in their way to the several sinuses, appeared remarkably turgid. The serous membrane covering the brain and upper part of the spinal marrow, were found to be the seat of extensive inflammation. The substance of the brain and spinal marrow appeared perfectly free from any lesion; there was no unusual vascularity indicated, or softening apparent; nor did the ventricles betray disease. The membranes of the spinal marrow were congested as low as examined, and bore the marks of severe inflammation; on cutting into the medullary portion of the brain, blood was seen to ooze out of the small vessels; no other parts of the body were examined.

*Case 34.* Reported by Dr. Chubbuck. Sunday, May 5th, I was visiting a patient with billious fever, at Horse Heads, a small village six miles north of Elmira, and on arriving at the house of my patient, a Mr. Simmons, aged twenty-three years, was lying on the lounge near the stove, in a semi-comatose state. On inquiry, I learned that he was attacked with a chill about four o'clock in the morning; when I saw him it was about ten o'clock, A. M. The chill lasted about one hour, when slight reaction came up. When I saw him he was warm, and had severe pain in the head and back and some pain in the limbs. He was placed in bed as soon as possible, and quinine and brandy, and infusion of serpentaria, were given freely; hot bricks, quenched in water were put in bed with him, and he was soon in perspiration. This course of treatment was continued, under the supervision of Dr. Greenman, of Horse-Heads, as long as medicine could be given. I left him at twelve o'clock, and was sent for again at five P. M. I did not arrive until eight o'clock, and then found the patient had been

dead two hours. A short time before death, spots of a raisin color, from the size of a six-pence downwards, appeared over the surface of the body. He was sick about fourteen hours.

*Case 35.* Reported by Dr. Stanchfield. A female child of Michael Moore, aged four years, living on High street, complained of being unwell, early in the morning of the sixth of May. Her mother paid but little attention to it, as the child had been exposed to measles only a few days previously. She continued to grow worse, became stupid and wanted to go to sleep. At eleven o'clock they became somewhat alarmed, on account of her having a chill, and sent immediately for a physician. I arrived at the house a few minutes before twelve o'clock; found her on the bed, with a shawl thrown loosely over her; respiration hurried, and louder than natural; pulse rather slow and very feeble; took no notice of any thing around her, no eruption to be seen by the most careful examination. I caused her to be put in bed, gave stimulants, and had hot bricks placed around her; called again in an hour and a half and found her in a profuse perspiration; the whole surface was sparingly covered with dark colored spots, not elevated nor regular in outline; would not disappear under pressure, nor did they increase or diminish in size during her illness; she continued to breathe harder, and became more comatose, and died at half past three o'clock, P. M.

*Case 36.* Child of John Conolly, three months old, living in the third ward, was taken suddenly sick, on the 19th of May, and died in two hours; not seen by a physician.

*Case 37.* Son of Wm. O'Kief, aged two years, living in the third ward, was taken on the 19th May, with symptoms peculiar to the disease, and only survived six hours.

*Case 38* Female child of Dennis Finnegan, aged fourteen months, was taken with the disease May 21st, and died in twelve hours; the characteristic eruption appeared, and the head was firmly retracted.

*Case 39.* Porter Breese, living at Horse-Heads, aged forty years, while seated in church, Sunday, May 24th, was seized with chills and violent head ache. He was taken out of church

and conveyed to his home, where, through the following night, he was exceedingly restless, turning and writhing in bed, in indescribable distress. The next morning he was nearly exhausted, pulse scarcely perceptible at the wrist, and respiration laborious. Stimulents, warmth and friction induced partial reaction; the skin grew moist, and raised colored spots soon showed themselves; he said nothing; (it is a characteristic of this disease that patients afflicted with it, no matter how intense their agony, seldom make known their suffering by means of speech;) appeared very indifferent to all that was going on about him; pulse very slow even to forty-five per minute; head retracted. This case proved fatal after a period of five days.

*Case 40.* Reported by Dr. Chubbuck. I was called to visit, at Horse-Heads, 27th of May, a boy by the name of Ward, aged seven years. He had been well all day, and played as usual, until 5 o'clock, P. M., when he came into the house in a chill, and with severe pain in the head and back. His mother, having hot water on the stove immediately put him into a warm bath, where he remained eight or ten minutes, and was then taken out, wrapped in flannel blankets and put in bed; hot bricks were placed by his side, a cup of warm ginger with brandy was administered, and a messenger was dispatched for me. I arrived at eight o'clock, and found the boy perspiring freely, perfectly insensible to what was passing, and had been vomiting, at intervals, for about an hour. The pulse was soft, small and easily compressed. I gave a dose of quinine and morphine, but in five minutes time the stomach rejected it, with a quantity of bilious matter; and I was not able to get him to swallow any more of the medicine; and at 9 o'clock he was relieved from his sufferings, having been sick only four hours.

*Case 41.* Reported by Dr. Wey. Mrs. Asa Sweet, aged thirty-two, living in the third ward, was seized with chills and violent pain in the head on Wednesday, May 27. She was seen by a homœopathic practitioner, who administered for her relief, but did not visit her again, in consequence of his own sickness. From Wednesday until Friday morning, at 10 o'clock, when I first saw her, she had not taken any medicine, except cathartic



pills, which had operated violently, and of course injuriously; experience has taught physicians, in this epidemic, that all such measures have a direct tendency to depress the vital functions, thereby lessening the prospect of recovery. She was lying on a bed, throwing her arms violently about, groaning and talking incoherently. Her eyes had a wild expression, and the pupils were neither contracted nor dilated, but seemed fixed and immovable. She could not understand me, when I directed her to show her tongue, and this failure of her mental faculties had taken place within a short time. I could not feel the pulse at the wrist, as it was impossible to hold the arm still for a length of time sufficient, even to count two or three. The entire surface of the body was sensitive to the touch, and any effort to move the joints, produced an outcry of pain. The neck was stretched back and the head pressed forcibly down in the pillow, and her spine was so rigid that a strong man, or to speak more properly, two strong men, could not raise her up in bed without lifting the whole body. Towards night she became more quiet, a few spots of eruption appeared on the cheek and arms, and at 2 o'clock on the morning of Saturday, May 30th, she died in a comatose state.

At the time she was attacked, her son, aged between four and five years, had been sick with the same disease nearly two months, and was then paralysed in his lower extremities. He required constant care, night and day, and the physical powers of the mother had been nearly spent when she yielded to the epidemic influence of the disease, and became a speedy prey to it.

*Case 42.* July 4th.—John Casey, (colored,) aged twenty-three years, was taken about two weeks ago, with pain in his head and extremities, with chills and prostration. After a few days' continuance, these symptoms became so augmented that he was obliged to take the bed for a part of each day. The pain in his head, especially the posterior part of it, was very severe; there was no vomiting. My first visit to him was on the first day of July, when his symptoms were as above described. His mind was rather obtuse; uttered his words with hesitancy; appeared quite impatient whenever his wife attempted to answer ques-

tions addressed to him; persisted in telling the story himself, but always took his own time in doing so, and generally stopped before he got through at that. At my visit in the evening he was wild, desiring all the while to have some one near him, and in his embrace; as I was about to leave, he repeatedly called me back, seized my hand and endeavored to restrain; he was extremely restless through the night. Yesterday, in the afternoon, when I called to see him, his brow and face were covered with large drops of perspiration, a kind of sweat which others have remarked in this disease; he exhibited his tongue in an awkward, faltering, ineffectual manner; he spoke but little; could not, or would not open his jaws to take medicine; difficult to raise him up in bed, on account of the stiffness of his joints.

The most striking feature of his condition to-day was a corpse-like rigidity of the whole body. This, I was informed, had existed since three o'clock in the morning. At three o'clock in the afternoon, when I visited him, he was lying on his back, with the head turned to the right side; eyes closed and lids tremulous, and when they were forcibly opened, the globe was found to be turned upwards, so as to obscure the pupil; brow and face bathed in sweat; arms nearly extended; fingers semi-clinched; hands and feet tremulous; rigidity well marked throughout the whole muscular system; sub-sultus; made water in bed; bowels not moved in several days; regardless of questions.

July 6th, 11 o'clock A. M.—I saw Casey at six o'clock of the 4th, with Drs. Hart, Chubbuck and Stanchfield. He was not quite as rigid as at the previous note; Dr. Chubbuck placed his hands under the patient's head, and by main strength lifted the whole body, the heels alone touching the bed; afterwards I raised him in like manner by the feet, when the occiput only rested on the bed. By considerable force Dr. Chubbuck flexed the left arm, also the left leg and thigh; there was a general resistance to all efforts to move the limbs, which appeared so much like volition, that it was long before Dr. Chubbuck and the rest

of us could satisfy ourselves that the rigidity was not feigned. Put a blister the whole length of the spine. About two o'clock at night he became very restless and fractious, causing his watchers much trouble; he continued so till after daylight. Yesterday I invited Dr. Uriah Smith to see the case with me, who, after he had examined him for awhile, came to the conclusion that "the darkie was playing possum;" but upon further examination and reflection, he entertained a different opinion, believing him to be in a dangerous, if not a hopeless condition. The patient did not speak, and water, poured into his mouth, remained there till it was poured out again; pulse growing more feeble and frequent—110; put a blister on the brow, and one on the calf of each leg; back thoroughly blistered from the head to the sacrum; makes water in bed; no operation from the bowels; skin, heat, and breathing natural; countenance placid; eyes not congested; pupils natural or contracted; teeth set, but by prying them open the tongue could be seen, moist, and coated with a white fur.

As I entered the chamber this morning at 6 o'clock, his wife was fast asleep on the floor, and the patient was firmly lashed, hands and feet, to the bedstead with a long cord, one end of which stretched far across the room, to the bannister rail, about which it was wound a dozen times, and tied in a triple knot. In explanation of this strange conduct, the wife said that he became unmanageable in the night, and she, being absolutely afraid of him, gave orders to have him bound. I expressed my astonishment at such a course, and proceeded to unbind the man, she in the mean time retreating to the head of the stairs, and begging of me not to set him free, nevertheless I removed his manacles and his fetters, and the frightened wench breathed easier when she saw that he did not move a muscle in consequence. He was profoundly comatose.

11 o'clock. I have just seen him for the second time to-day. He has been very quiet since morning, lies on his side, opens his eyes now and then, and moves them about the room, or fixes them upon some person or object, with a composed and vacant stare. He was alone while his wife was at breakfast, and on her



return she found his position so changed that his temple was lying on one of the knobs of the bedstead rail. July 8th, five o'clock P. M. He died at six o'clock this morning; no convulsions; no movement of the bowels.

*Post-mortem.*—The vessels of the dura-mater full; cavity of the arachnoid contained much fluid; some also, more opaque in character, beneath the arachnoid membrane, especially at the back part of the cerebrum; large quantity of serum at the base of the brain and down the cord; arachnoid intensely injected; no other organs examined.

*Case 43.* George Condoll, colored man, aged twenty years, living in the Third ward, was taken on the 15th of August with headache, chills, vomiting, retraction of the head, and other characteristic symptoms, and died on the 19th, following.

This list comprises, with perhaps three or four exceptions, all the deaths which occurred from the epidemic in this region of country. A solitary case occurred in the month of May near the village of Athens, Pa. The person, a Mrs. Mead, exhibited well marked symptoms of the disease, and died in the space of twenty-four hours. Dr. Eastman informed me that two similar cases proved fatal, near the village of Owego, about the same time.

I understand, also, from Dr. French of Lisle, that he met with one fatal case, in his neighborhood, during the spring. At Brocket's Bridge and Little Falls, also in Madison county, in Syracuse and in Rochester, a disease called brain fever, existed during the same period. Cases of it also occurred in the State of Connecticut, and how far beyond these limits the epidemic influence was felt, I am unable to say.

Of the cases which I have reported, thirty-one were males and twelve were females. The following table shows the succession of the cases, the ages of the persons attacked, and the duration of the disease in each case :

	Dec.	Jan.	Feb.	March.					
Date,.....	23	1	11	13	21	24	4	7	9
Age,.....	14	13	1	7	5	12	1	6	10
Duration, days,.....	5	5	4h	2	7h	1	6h	12h	3

	March.								
Date, .....	10	10	12	14	16	20	21	21	21
Age, .....	5	30	41	4	7	7	8	6	25
Duration, days, .....	1	2	1	16h	3	8w	6h	2h	9

	March.							
Date, .....	23	23	25	25	26	26	28	30
Age, .....	39	23	5	2	36	16	11	1
Duration, days, ..	3	1	1	2	10mo.	3	4m.	6h

	April.							May.	
Date, .....	1	5	6	7	8	13	28	5	6
Age, .....	4	17	41	17	4	19	11	23	4
Duration, days, .....	3	5	2	8w	4	4	2	12h	12h

	May.						June.	Aug.
Date, .....	19	19	21	24	27	27	29	15
Age, .....	1	2	2	40	7	32	23	20
Duration, days, ...	2h	6	12h	5	4h	3	10	4

To possess a correct idea of the epidemic as it prevailed here, the reader must bear in mind, that only the fatal cases have been recorded in this report. How many persons experienced the disease and recovered, I am unable to say. That many children and adults, during the prevalence of the epidemic, had the disease in a milder form, and speedily recovered under treatment, I have no doubt; but the number of persons who had violent headache, vomiting, jactitation, dilated pupils, local paralysis, or any well marked evidence of effusion, or even extreme congestion of the brain, and finally recovered, must have been very small, in comparison with the number that died.

The disease of which the foregoing cases are an illustration, although it has never before existed in this locality, is not new to the human family, or to the medical profession. Fortunately, however, no age or position of the world, has ever been made frequently or extensively, acquainted with its ravages; and hence the reason why it has always been regarded as a new disease. Many parts of the earth have never been visited by it, and few localities have ever received a second visitation, till long after

the former one had been forgotten. It occurred in Sydenham's day, and he describes it as typhus petechialis novus. It occurred in many parts of New England, in 1807 and 1808, at which time Dr. Elisha North, of Hartford, published an interesting monograph upon the subject, under the title of Spotted Fever. It prevailed in France in 1837, at Gibraltar in 1844, and in Ireland in 1846. Many of the physicians now residing in Cortland and the adjoining counties of this State, will remember an epidemic which prevailed there about ten years ago, and was generally called cerebro-spinal-meningitis. The disease is briefly described by Watson, and also by Wood, under this latter title. If Bartlett speaks of it at all, it must be under the head of congestive fever.

Statistics show, what is a remarkable feature of this epidemic, that children and young persons, especially boys, are by far the most frequent victims of the disease.

Few maladies give rise to a more constant and harmonious array of symptoms. Indeed, so uniform are the more striking characteristics of this complaint, that one can hardly report a long list of cases, without becoming monotonous to the reader. A chill, headache, vomiting, prostration, morbid sensitiveness of the skin, jactitation, coldness of the surface, wildness of expression, dilated pupils, irregular breathing, paralyzed deglutition, wry neck, retraction of the head, dullness or abolition of the senses, pulse but little affected, bowels quiescent, petechia, delirium, convulsions, coma; these are impressive symptoms, and many, or all of them, attend each case. The diagnosis therefore, can not be difficult, especially where the disease is fully established. Neither is it difficult to give a rationale of these manifestations. With the headache, heavy chill, and cold surface, there is violent congestion of the brain; the vomiting and irregular breathing, indicates disturbance of the pneumogastric nerve; if there be dilated pupil and loss of sight, they show the nerves of vision to be impaired; when the hearing becomes obtuse, the auricular nerve has suffered; if the sterno-cleido-mastoid and trapezius muscles are rigidly contracted, their congestion or effusion surrounds the spinal accessory; if an arm is convulsed or



paralysed, the difficulty embraces the upper portion of the cord; and in like manner, all the conspicuous symptoms may be explained by the congestion or effusion that exists in the cephalic and vertebral cavities. But having philosophised thus far, it is not so easy to take another step, and account for the congestion, or the inflammation, whichever it may be. The remote cause of this is epidemic, is subtle in its nature, like all other epidemic influences, and makes its impression directly upon the nervous system, without any previous derangement of the blood or the secretions. The exciting causes are exposure to cold and whatever else tends to depress the vital energies of the system. If a neglected child creeps about the cold floor, in wet and scanty clothing, or a delicate boy plays in the snow with damp feet, or a lively school-girl dances and sings till she is exhausted, or a fisherman wades too long in the river, or a debauchee falls into the canal, they will be quite likely to encounter the disease.

The prognosis in this complaint is extremely unfavorable. There is far more hope of avoiding the disease by prophylactic measures, than of removing it when once seated.

How to combat the difficulty, with the greatest success, is a question of vast importance; and yet, upon this subject, there exists a discrepancy of opinions. Those who call the disease cerebro-spinal-meningitis, speak of the violent pain in the head, the congested eyeballs, and the threatened effusion, as indications for the use of the lancet; whilst those who prefer the name typhus fever, advise the immediate and most heroic use of brandy, and other stimulants. The latter course, in my mind, is the preferable one, especially during the cold stage; but if the patient survive this period, and a raging paroxysm of fever comes on, with evidence of supreme congestion of the brain, I question whether the lancet is not then admissible, and even judicious. It is a sad truth, however, that in the more formidable cases of this disease, all treatment is unavailing. As in apoplexy, so in this disease, the immediate injury to the nervous system is often so great as to render all medicines powerless.

The pathological appearances, after death, are found, chiefly, in connection with the skin, the brain, the spinal marrow, and the stomach.

The terminations of the disease are five. In the first place, it may be nipped in the bud, in which case the patient speedily recovers, without experiencing the dreadful effects of the first chill; secondly, death may take place in the cold stage, before reaction comes on; thirdly, the patient may die during the hot stage, which often lasts several days; fourthly, he may outlive the fever, and die eventually from the effects of effusion; and lastly, he may survive these also, and in the end, regain either perfect, or partial health of mind and body.

My thanks are due to all those physicians who have kindly aided me in the preparation of this report.

NATIONAL LIBRARY OF MEDICINE  
Bethesda, Maryland

